

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 7-11, 15, 16, 18, 19, 22-24, 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barmore et al. U.S. Patent Application Publication No. 2001/0008658 (hereafter referred to as Barmore) and Mintz et al. U.S. Patent No. 5,413,148 (hereafter referred to as Mintz).
3. Barmore teaches a packaging film comprising a first thermoplastic substrate layer which can be coated with a second edible film layer which is transferred to a product during cooking comprising a binder, an additive and a crosslinking agent. (Para. 8, 11) The edible film is adhered to the meat product such that upon removing the packaging film from the meat product, the edible film layer remains adhered to the meat product. (Para. 33) The binder and the crosslinking agent provide cohesion of the coating. (Para. 196) Additionally, the nature of the binder along with the crosslinking agent is believed to control the rate of hydration of the coating allowing the coating to remain intact against the flow of high moisture meat product. (Para. 196)

4. The additive may comprise caramel, natural colorant, spice or citrate. (Para. 12)

The binder may comprise a first binder including alginate, methyl cellulose and hydroxypropyl starch and a second binder comprising materials including proteins such as albumin, zein, carageenan, casein, soy protein or wheat protein. (Para. 16)

5. The packaging film preferably further comprises a third layer between the first and second layer comprising materials such as alginate and hydroxypropyl starch to serve as a release layer. (Para. 23) The packaging film of the invention is also recited to comprise a layer which serves as a barrier to oxygen. (Para. 28) The laminate of the invention is recited to be useful for production of casings such as fin-sealed, lap-sealed and butt-sealed casings for meat products. (Col. 32)

6. The casing of Barmore may also comprise an inner barrier layer in addition to the substrate layer. (Para. 27,18)

7. The multilayer film of Barmore may be produced by coating a surface of a substrate film with the film forming coating composition, drying the composition to form a first film layer followed by forming the substrate film into a tubular article by sealing the edges of the substrate film by methods including employing butt seal tape as an adhesive. (Para. 31, 32, 126)

8. Barmore is silent regarding employing a knitted or woven textile layer in the casing disclosed.

9. Mintz teaches that it was well known in the meat casing arts to encase tubular meat products in netting in order to form a desirable checkerboard pattern on the surface of the meat product. (Col. 1, lines 20-36) These netting materials may be made

of cotton or polymers such as polyester and nylon and can be woven or knit. (Col. 1, lines 23-26, Col. 3, lines 40-42) Mintz also teaches that collagen is a well known protein for forming films to produce sausage casings. (Col. 1, lines 50-64)

10. Both Barmore and Mintz are directed towards meat casings. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a woven or knitted netting around the meat casing of Barmore in order to impart a checkerboard pattern to the surface of the meat product of Barmore since this pattern was known in the art to be aesthetically pleasing.

11. Regarding claims 1-4, 8-11, 15 and 16: The coating material of Barmore is the same as that claimed in claims 1-4 and 16. The woven or knitted netting textile of Mintz is necessarily extensible or non-extensible since these are the only two options possible for extensibility. The obvious modification of Barmore with Mintz to provide an advantageous improvement in the aesthetic qualities of the casing of Barmore would have produced the same invention as claimed in claims 1-4, 8-11, 15 and 16.

12. Regarding claims 7, 18 and 19: The common netting material disclosed by Mintz is woven or knitted and comprised of natural fibers such as cotton or synthetic fibers such as polyester or polyamide. The obvious use of such a netting material in the invention of Barmore would have produced the same invention as claimed in claims 7, 18 and 19.

13. Regarding claim 22: Mintz evidences that collagen was well known in the art for forming protein films to be employed in meat casings. Barmore recites several protein materials for the casing disclosed but is silent regarding collagen. It would have been

obvious to one having ordinary skill in the art at the time the invention was made to have employed collagen as the protein in the transfer coating film of Barmore since collagen was a well known protein for forming meat casing films as evidenced by Mintz. The selection of a known material based on its suitability for its intended use supports a *prima facie* obviousness determination. ("Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious)) (MPEP 2144.07)

14. Regarding claims 23, 24 and 26: Barmore clearly recites employing a third layer between the edible layer and thermoplastic layer. This third layer of Barmore is not disclosed to include crosslinking agent and would therefore be water soluble since it is disclosed to comprise water soluble materials such as alginate and hydroxypropyl starch. The obvious modification of the embodiment of Barmore comprising this third layer with Mintz would have produced the same invention claimed in claims 23, 24 and 26.

15. Regarding claim 28: Although Barmore does not disclose that the coating is rendered insoluble via treatment with smoke and/or by warming or heating, it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of

a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113. In the instant case, the coating of Barmore is insoluble and even though produced by a different process, the invention of Barmore as modified by Mintz reads on the invention claimed in claim 28.

16. Regarding claim 29: The coating of Barmore is intended to be present in the casing prior to stuffing with meat product and is comprised of the same materials claimed and disclosed by applicant. Therefore, it naturally flows that the coating of Barmore meets the limitations of claim 29.

17. Claims 1-4, 7-16, 18-20, 23, 24, 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barmore et al. U.S. Patent Application Publication No. 2001/0008658 (hereafter referred to as Barmore) and Ito et al. U.S. Patent No. 5,705,214 (hereafter referred to as Ito)

18. Barmore teaches what has been recited above but is silent regarding employing a woven or knitted textile layer.

19. Ito teaches a food component transfer sheet for forming a food casing comprising a water and heat resistant base sheet, a layer comprising granules, powders and/or chips of a food component to be transferred and a glue layer formed from an edible water soluble material between the base sheet and food component layer. (Col. 2, lines 5-22) The base sheet of the casing of Ito may be a sheet of woven or knitted fabric made from natural fibers such as plant fibers, animal fibers, cellulose acetate or synthetic fibers such as polyester or nylon. (Col. 3, lines 14-28)

20. Both Barmore and Ito are directed towards food casings having a food transfer component. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a woven or knitted substrate layer in the invention of Barmore since these types of substrate layers were known in the art to be suitable for food casings having food transfer layers. The selection of a known material based on its suitability for its intended use supports a *prima facie* obviousness determination. ("Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious)) (MPEP 2144.07)

21. Regarding claims 1-4, 7-13, 15, 16 and 18-20: The coating material of Barmore is the same as that claimed in claims 1-4 and 16. The obvious selection of a cellulose, polyester or nylon knitted or woven substrate layer for the food casing of Barmore would

have produced the same invention as claimed in claims 1-4, 7-11, 15, 16, 18 and 19 formed by the same method claimed in claims 12, 13 and 20.

22. Regarding claim 14: The casing of Barmore may comprise an inner barrier layer in addition to the substrate layer. Therefore, the obvious modification of Barmore with Ito would have produced the same invention as claimed in claim 14.

23. Regarding claims 23, 24 and 26: Barmore clearly recites employing a third layer between the edible layer and thermoplastic layer. This third layer of Barmore is not disclosed to include crosslinking agent and would therefore be water soluble since it is disclosed to comprise water soluble materials such as alginate and hydroxypropyl starch. The obvious modification of the embodiment of Barmore comprising this third layer with the teachings of Ito would have produced the same invention claimed in claims 23, 24 and 26.

24. Regarding claim 28: Although Barmore does not disclose that the coating is rendered insoluble via treatment with smoke and/or by warming or heating, it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed

product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113. In the instant case, the coating of Barmore is insoluble and even though it is produced by a different process, the invention of Barmore as modified by Ito reads on the invention claimed in claim 28.

25. Regarding claim 29: The coating of Barmore is intended to be present in the casing prior to stuffing with meat product and is comprised of the same materials claimed and disclosed by applicant. Therefore, it naturally flows that the coating of Barmore meets the limitations of claim 29.

26. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barmore et al. U.S. Patent Application Publication No. 2001/0008658 (hereafter referred to as Barmore) and Ito et al. U.S. Patent No. 5,705,214 (hereafter referred to as Ito) and Rose U.S. Patent No. 3,383,223 (hereafter referred to as Rose).

27. Barmore teaches what has been recited above but is silent regarding the protein in the coating disclosed comprising gelatin and the casing disclosed comprising a woven or knitted textile layer. Barmore further teaches that the crosslinking agent may comprise glutaraldehyde, glyoxal, or ester of dicarboxylic acid. (Para. 21)

28. Ito teaches what has been recited above.

29. Rose teaches a coating for food casings comprising a soluble protein such as gelatin and a dialdehyde crosslinking agent which renders the coating insoluble such

that the protein of the coating is not lost during the presoaking of the casing. (Col. 3, lines 25-40) Other soluble proteins include albumin. (Col. 3, lines 56-60) The dialdehyde cross linking agents of Rose are disclosed to include glyoxal and glutaraldehyde. (Col. 3, lines 61-66)

30. Regarding claim 30: Both Barmore and Ito are directed towards food casings having a food transfer component. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a woven or knitted substrate layer in the invention of Barmore since these types of substrate layers were known in the art to be suitable for food casings having food transfer layers. The selection of a known material based on its suitability for its intended use supports a *prima facie* obviousness determination. ("Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious)) (MPEP 2144.07)

31. Both Barmore and Rose are directed towards food casings comprising coatings comprising water soluble proteins such as albumin which have been rendered insoluble by the inclusion of cross linking agents such as glyoxal and glutaraldehyde. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted the gelatin soluble protein component disclosed by Rose for

the soluble protein component such as albumin disclosed by Barmore because, as evidenced by Rose, both gelatin and albumin were known in the art at the time the invention was made to be equivalent for providing water insoluble protein coatings when cross linked with cross linkers such and glyoxal and glutaraldehyde. (See MPEP 2144.06 II)

32. The modification of Barmore with Rose would have produced a coating having the same composition as claimed in claim 30. The modification of Barmore with Ito would have produced a casing having the same structure as claimed in claim 30. Therefore, the modification of Barmore with Ito and Rose would have produced the same invention as claimed in claim 30.

Response to Arguments

33. Applicant's arguments filed 1/12/12 have been fully considered but they are not persuasive.

34. In response to applicant's arguments on pages 9, 10, 12 and 13 of the remarks against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

35. Applicant asserts on pages 9, 10 and 11 that Barmore requires a casing having a shrinkage of up to 55% at 185 ° F by citing paragraphs 3 and 8 of Barmore. Paragraph 3 of Barmore is the background section and only indicates that some cook-in films are heat shrinkable, not that the specific casing of Barmore is required to be heat shrinkable. It is unclear what teaching in paragraph 8 of Barmore applicant is relying on to support this assertion. Applicant's assertion that Barmore teaches a minimum of 15% shrink in each direction fails to acknowledge that the citation relied upon explicitly states that "If" the film is "heat-shrinkable" it should have shrink properties as stated in paragraph 100, not that the film of Barmore is required to shrink. As such, applicant's assertion on page 10 of the remarks that modification of Barmore to "avoid its required shrink would render it unfit for its intended purpose" is inaccurate since the film of Barmore is **not required** to shrink.

36. Applicant asserts on page 11 of the remarks that the modification of Barmore with Ito would not have resulted in the claimed invention but fails to provide any arguments to support this position. Therefore this assertion is not found persuasive.

37. Applicant assertions regarding unexpected results on page 11 of the remarks are not found persuasive since the transferable coating claimed is not required to actually be in contact with a textile layer. Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. *In re Clemens*,

622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). (MPEP 716.02 (d)) In the instant case, none of the pending claims define an invention commensurate in scope with applicant's asserted unexpected results and therefore this secondary consideration is not germane.

38. Applicant asserts on pages 11, 12 and 13 of the remarks that Barmore requires a cross linker in the intermediate primer layer. This is an inaccurate representation of the full disclosure of Barmore. Applicant has failed to point to any teaching in Barmore requiring a cross linker in this layer and therefore this assertion is not found persuasive.

39. Applicant has asserted on pages 10, 11, 12 and 13 of the remarks that the secondary references relied upon by the examiner, Ito and Mintz, fail to teach every aspect of the claimed invention. However, note that while Ito and Mintz do not disclose all the features of the present claimed invention, Ito and Mintz are used as teaching references, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these references each teach the concepts enumerated above and in combination with the primary reference, disclose the presently claimed invention.

40. It is unclear to the examiner what applicant is referring to in asserting on page 12 of the remarks that Mintz gives no indication that the liquid within its stockinette could be combined with an edible binder layer since the examiner did not rely upon a combination in which the transferrable layer of Barmore was applied directly onto the stockinette of Mintz for rejection of the pending claims.

41. By highlighting Col. 2, lines 9-11 and Col. 1 line 65-Col. 2, line 3 of Mintz on page 12 of the remarks applicant appears to assert that one of ordinary skill in the art would not have sought to utilize collagen in the coating of Barmore as asserted by the examiner. However, as stated in MPEP 2123 II. "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) In the instant case, Mintz clearly discloses that coatings based on collagen were known in the food casing arts to be suitable and therefore the incorporation of collagen as the protein required in the coating of Barmore would have been obvious to those having ordinary skill in the art.

42. Applicant asserts on page 13 of the remarks that there would have been no motivation to modify Barmore with Mintz and that the modification of Barmore with Mintz would not have resulted in the claimed invention but fails to provide any arguments to support this position. Therefore this assertion is not found persuasive. Likewise, applicant also fails to provide any explanation of why the modification of Barmore with Mintz would not produce a casing in which the transfer coating is completely transferred onto a foodstuff as asserted on page 14 of the remarks and as such this argument is also not found persuasive. Applicant's further assertions on page 14 of the remarks also not found persuasive as they are generic assertions not supported by any actual argument or explanation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michele L. Jacobson whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michele L Jacobson/
Primary Examiner, Art Unit 1782

Michele L Jacobson
Primary Examiner
Art Unit 1782